

#### ABSTRACT

An instantaneous voltage dip detection device is provided with: all-pass filter (2) for phase shifting a supply voltage waveform (11) by  $90^\circ$ ; a comparator 7 that outputs a signal when the supply voltage waveform (11) is smaller than a threshold (12) in regions of  $\pi/4$  to  $3\pi/4$ ,  $5\pi/4$  to  $7\pi/4$ ; a comparator (8) that outputs a signal when a phase shift voltage waveform (13) is smaller than a threshold (14) in regions of 0 to  $\pi/4$ ,  $3\pi/4$  to  $5\pi/4$ ,  $7\pi/4$  to  $2\pi$ ; an OR circuit (9) to which signals from the comparators (7), (8) are inputted; and a signal generator (10) for generating a voltage dip detection signal in response to an output from the OR circuit (9).